1: Holmberg--11 (1941-42) 1950 Siriono
116, 105

"Technologically speaking, the Siriono can be classified with the most culturally backward peoples of the world. They subsist with a bare minimum of material apparatus. Being seminomadic, they do not burden themselves with material objects that might hamper mobility. In fact, apart from the hammocks they sleep in and the weapons and tools they hunt and gather with, they rarely carry anything with them. What few other material objects they make and use are generally hastily fashioned at the site of occupancy. A brief account of the principal technological processes and manufactured articles, with their uses, follows."

1: Holmberg--83 [5] (1941-42) 1950 Siriono
116, 105, 885

"While the obligations of adulthood are not extreme (the needs of the society are minimal), the struggle for survival is intense. There is no security of food; there are long and forced marches through spiny jungle and swamp; there are many sleepless nights of wind, rain, and insect pests; there is constant threat of disease and death. In short, the natural environment is harsh, and the techniques which the culture has developed for dealing with it are crude and insecure. Hence a person must be on the alert most of his waking time to procure the bare necessities of life."

"A more detailed examination of some of these factors will perhaps better explain why it is that hunger becomes such a potent motivating force in Siriono society. In the first place, the supply of food, while sufficient for survival, is seldom abundant. People actually suffer frequently from food deprivation. As well as being sparse, the food supply is highly insecure; chance factors with respect to the food quest here play a much more significant role in affecting culture and behavior than in most other societies. When a hunter sets out in search of game, there is a high probability that his hunt will be unsuccessful or at least only partially rewarding. True, the forest contains some foods, such as palm cabbage and nuts, that are available and abundant the year around and others, such as certain wild fruits, that are relatively plentiful for about 4 months of the year, but these in themselves are not nutritive enough to sustain life for long [94] periods of time. The society, furthermore, is not equipped with cultural techniques for dealing with its environment so as to offer surety of food supply. Agriculture is but little developed; weapons are cumbersome; tools are almost lacking; and food is neither stored nor preserved in any abundance or for any length of time.

Accompanying these frustrating conditions are others adverse to the satisfaction of the hunger drive, especially the fatiguing and painful aspects of the food quest. The hunter and gatherer must go in search of food at least every other day throughout the year. He must walk long distances, as many as 20 miles a day, in his quest for food.

He may be forced to run at top speed through almost impenetrable jungle and swamp to bag a single monkey or coati, and once having bagged his prize he may be forced to climb a tree to retrieve it or the arrow with which he shot it. Game and forest products must always be carried back to camp—sometimes a long distance away. In walking and running through swamp and jungle the naked hunter is exposed to thorns, to spines, and to insect pests; he may fall from a tree (as he frequently does) while harvesting fruits or retrieving game; he is exposed to attacks from jaguars, alligators, and poisonous snakes; he sometimes suffers intensely from heat, cold, and rain. At least 25 percent of the time he returns to camp empty-handed or with insufficient food to completely nourish his family, for which he may be chided by his relatives. In short, while the food quest is differentially rewarding because food for survival is always eventually obtained, it is also always punishing because of the fatigue and pain inevitably associated with hunting, fishing, and collecting food.

Psychologically speaking, these are the conditions that give rise to the preoccupation of the Siriono with food problems, to their affective attituded toward food, and to their strong secondary drives based on the drive of hunger. The anticipation of the intensely punishing aspects of the food quest—actual food deprivation, possible nonsuccess on the hunt, fatigue, pain, and other forms of punishment—tends to evoke strong anticipatory responses with respect to food. These anticipatory responses—for example, strong food responses to weak hunger stimuli—are, in effect, secondary drives. For purposes of this discussion they may be regarded as appetite and anxiety responses."

"Attention should be called to the fact that anticipatory responses toward food in Siriono society may be due, in part at least, to the conflicting factors that affect the quest for food. These conflicting factors seem to be much more pronounced among the Siriono than among most other peoples. On the one hand, a man is strongly motivated (and eventually forced, of course) to go in search of food because of a mounting hunger drive, a desire for prestige, or the need for a sexual partner. On the other hand, he is also strongly motivated to lie in his hammock and to postpone the search for food as long as [95] possible, because of the painful, fatiguing, and otherwise punishing aspects of the food quest. Before a Siriono picks up his bows and arrows to go on a hunt he doubtless asks himself: 'Should I or should I not go?' His stomach stimulates him to go; his relatives tell him to go; he may be motivated to leave by a desire to eat tapir, to seduce a potential wife, to acquire or maintain status, or for any number of other reasons. But when he recalls his last or earlier hunt—an occasion when he came back empty-handed after having tramped all day through jungle and swamp, when he was chided by his relatives for his lack of success or skill, and when he returned with his feet full of spines and thorns and his body covered with wood ticks and insect bites—his ardor to leave is likely to be considerably dampened. Under these conditions he is apt to try to get food first by some other means, and if unsuccessful, even to lie down in his hammock for a while until the hunger drive, or the social pressure to go hunting, becomes unbearable. In any case, if there is food around, he is not likely to expose himself to the rigors of

the jungle before it is all consumed, for if he departs under these conditions he is certain to find when he returns that the food has already been eaten by someone else. These conflicting factors are doubtless responsible for much of the behavior toward food. (14)

14. For an excellent discussion of anxiety and conflict, see Mowrer, 1940, pp. 126-128."

I: Holmberg--95 (1941-42) 1950 Siriono
116, 152, 261, 105

"The evidence for strong appetitive and anxiety responses toward food in Siriono society is overwhelming. Hasty preparation of food, lack of complex recipes, absence of standardized routines of eating, stealing off into the forest to eat, wolfing food, over-eating, reluctance to share food, lack of food preferences except on a quantitave basis, absence of etiquette and ritual with respect to food, eating when sick, eating when not hungry, excessive quarreling over food, fantasies and dreams about food, insults in terms of food, etc., may all be regarded as direct manifestations of the strength of the secondary drive of eating and of the anxiety that centers around the satisfaction of the hunger drive.

How do such attitudes and behavior toward food arise and develop in the Siriono child? A glance at the data from the life cycle clearly indicates that adult behavior toward food cannot be accounted for on the basis of the experiences of infancy and early childhood. The nursing infant is almost never deprived of food; whenever he cries his mother offers him the breast. He is greatly loved. He is exposed to almost no punishment except what he indirectly suffers from the rigors of the environment, but his parents do everything they can to protect him from cold south winds, from rain, and from insect pests. He can express aggression freely; he is not forced to walk or talk early; weaning is not a traumatic experience. In short, the infant is rarely punished or frustrated. Hence the conditions existing in infancy are not favorable for giving rise to the food anxiety manifested in adulthood."

"After weaning, however, conditions change, and somewhat abruptly. However gradual parents try to make the transition from infancy to childhood, it is not always possible. Once the child has ceased to nurse, his food supply becomes uncertain; he begins to feel his first serious hunger pangs. His father may have obtained nothing on the hunt; he may have brought home only varieties of game which are taboo for a child to eat; he may have secured only a small amount of game, not sufficient to completely nourish his family; rain or flood may have prevented him from making an expedition in quest of food. Consequently, after the child is weaned, the response of crying which formerly always resulted in food is no longer always rewarded because there may be no food present at the moment. As the child grows older and more independent of his parents, the periods of actual food deprivation become more frequent and more intense. Younger siblings appear in the family and receive preferential treatment. Accompanying the pangs of hunger are the sufferings of fatigue and pain. The child is no longer carried, but must walk long distances with his parents in quest of food. No longer does he receive protection from cold south winds, from rain, and from insect pests. His feet become filled with spines. He suffers from skin worms, scorpion bites, and lack of sleep.

These are the conditions which provide the learning situation out of which a strong appetite for eating and an intense realistic anxiety about food arise in the Siriono child. These secondary drives develop soon after weaning and rise in intensity as the child

grows older and more independent of his parents. By the time a youth reaches the age of 10, he is already manifesting [96] most of the signs of adult behavior toward food. In general, he is aggressive in all matters that pertain to food. He fights and quarrels for his share of food; he manifests a strong reluctance to share food; he wolfs his food; he eats principally at night; during the day he may steal off in the forest to eat; he eats when he is ill or not hungry; he lies about food; he even dreams about food. Indeed, if the Siriono had developed eschatological concepts, the afterworld would probably be a place where food, above all things, would be found in abundance and plenty."

"In addition to the above-mentioned individual responses, which we may regard as direct manifestations of hunger frustration and anxiety in Siriono society, it appears that these conditions likewise occasion indirect manifestations by which we may characterize the society as a whole. Culturally, Siriono society exists on a very backward level. Technology is sparse; art is almost absent; social and political organization are relatively simple; there is an unconcern for intellectual and speculative matters. While unquestionably many factors—perhaps hundreds—operate to produce these conditions, yet it seems likely that the preoccupation with food problems—resulting in what we have called hunger anxiety—is one of the most significant ones. From my observations among the Siriono most of the native's time is spent on the quest for food or resting from it; under conditions of this kind, little seems to remain for the pursuit of other activities. While it is dangerous to generalize about such complex problems it does not seem likely that highly elaborated cultures would emerge under conditions similar to those found among the Siriono. Rather, cultures would change slowly and remain on a backward level. This is precisely what the Siriono data indicate.

In Siriono society we note, moreover, what appears to be a dominance of hunger over all other primary drives, except possibly that of fatigue. The Siriono, or course, do not suffer from lack of air or water, so such needs can be largely discounted as strong motivating forces in the society. But the dominance of hunger over sex seems unmistakable. While the drive of sex is seldom frustrated to any great extent, it is mobilized

largely through the drive of hunger. The family is founded on an economic basis. Marital partners are secured by providing food and economic security. Extramarital sex partners are acquired primarily through rewards of food. The preference for fat women over lean women and for food-gathering women over skilled potters or hammock makers suggests that even sexual appetites are based primarily on the drive of hunger. This is clearly observable among the women, who prefer good hunters to all other partners.

Actually, when food is scarce there is little expression of sex. On one expedition which I made into the forest with the Siriono for a period of about 6 weeks, I observed that there was little sexual activity during periods of food deprivation, but that excessive activity followed periods of food satiation. This, coupled with other data, leads to the conclusion that periods of food deprivation are generally accompanied by sexual abstinence while periods of food satiation are followed by sexual excesses. Such behavior seems to indicate the dominance of hunger over sex in Siriono society."

1: Holmberg--96 [2] (1941-42) 1950 Siriono
116, 105, 152

"While the problem of the relationship between primary drives needs much further investigation, both in our own and in other societies, it seems as if Siriono society compensates its members for suffering from intense hunger frustration by allowing them great license in the realm of sex. I frequently observed that children were shown greater love when they were suffering from hunger, fatigue, or pain than at other times. With young children love was constantly used as a palliative. So, too, in adulthood sex freedom may compensate for hunger frustration.

Another indirect consequence of hunger frustration os that the strongest secondary drives among the Siriono seem to be those based on the primary drive of hunger. The strong appetite for eating has already been mentioned. Prestige, too, though not a prominent secondary drive, is based primarily on a person's ability as a food getter. Chiefs are always good hunters. Sexual appetites are also founded to some extent on the drive of hunger. Finally, the most aggressive behavior is expressed in terms of and over questions of food, and anxieties seem to center principally around the satisfaction of hunger."

1: Holmberg--96-97 (1941-42) 1950 Siriono
116, 105, 121, 152

"Indeed, if the psychoanalysts are correct in their interpretations of behavior in our own society, the situation found among the Siriono is in many respects reverse. While the strongest secondary drives and anxieties in our own society arise from sex frustration, among the Siriono they may arise [97] from hunger frustration, and while food often compensates for sex deprivation in our own society, among the Siriono love appears frequently to serve as a compensation for hunger. Hence it would seem unsafe to generalize the findings of psychoanalysis, based on data from our own society, to other societies where drive conditions are not comparable."

I: Holmberg--97 (1941-42) 1950 Siriono
116, 105, 152, 845

"The treatment of the sick and the aged in Siriono society appears indirectly to reflect hunger frustration. When a person becomes too old or too sick to hunt, to gather food, to bear children, or otherwise to take an active role in the society, he becomes a liability. If treated indulgently, the sick and aged might prove such a burden as actually to threaten the survival of the group. Consequently, people who are extremely ill or decrepit and whose period of usefulness is over are abandoned to die.

It might seem strange that the Siriono do not follow a similar practice toward deformed infants. Attention has already been called to the fact that some 15 percent of native infants are born with clubfeet. Considering that only about one in five such infants reaches adulthood, marries, and raises a family, it is rather surprising that the Siriono do not kill or abandon them when they are born. But such is not the case. During infancy clubfooted children are treated with as much love and respect as normal children. There are doubtless several reasons for this. In the first place, children enjoy a favored status in Siriono society. They are loved to excess and overindulgently treated. While a Siriono thinks nothing of abandoning the aged or sick adult, he would look with horror and disgust at anyone who abandoned or killed a child. In the second place, deformed infants, unlike the dependent aged, do not threaten the food supply of others. They nurse until they are about 3 years of age, and even as young children they eat much less than an aged adult. Finally, there is at least a 20 percent chance that a deformed infant will grow up to be a useful member of society, while it is a certainty that an aged dependent will always remain a burden."

1: Holmberg--97 [2] (1941-42) 1950 Siriono
116, 105, 152

"It is probably true that magical practice in Siriono society is likewise largely a function of hunger frustration. While the data from this aspect of culture are sparse, they relate principally to the quest for food. Attention has already been called to the fact that hunters do not eat the flesh of certain animals that they kill for fear that these animals will not return to be hunted by them. They also hang up the skulls of the animals and the feathers of the birds which they bag for the same reason. They smear themselves and their arrows with uruku, glue feathers into their hair, etc., to attract game. Men let blood to make themselves more valiant hunters; women to make themselves more valiant collectors. Such magical behavior seems largely to be a reflection of the disparity between the constantly recurring hunger drive and the means of satisfying that drive. Lacking realistic techniques for insuring his food supply, the native resorts to magical practices to secure it. Given the conditions that exist, it is surprising that food and hunting magic have not become even more highly elaborate.

It is significant to note that there appears to be an almost complete lack of sex magic among the Siriono. The reason for this may be that the sex drive, unlike the hunger drive, is seldom frustrated to any great extent. The Indians rarely lack partners. Hence the native feels no need to rely on magical practice to lessen his sexual tensions. In fact, this type of anxiety seems to be remarkably low in Siriono society. Such manifestations as excessive indulgence, continence, or sex dreams and fantasies are rarely encountered except when motivated by a condition of hunger frustration."

1: Holmberg--97 [3] (1941-42) 1950 Siriono
116, 105, 152

"The relative cohesiveness of the Siriono kin groups, the nuclear and extended families, as compared with the local group or band, seems also to stem principally from the condition of hunger frustration. While it is true that in most primitive societies kin groups are more closely knit than other social groups, the reasons for this may vary widely from one society to another. The important fact to consider here is that among the Siriono family solidarity seems to spring primarily from a lack of economic security. The supply of food is often not sufficient for distribution outside of the nuclear family and almost never sufficient for distribution outside of the extended family. Under conditions of this kind the local group or band becomes relatively unimportant as a social group. Except for supplying sex and marital partners, it has few functions. Practically all other functions are performed by or within the family. In short, the family embodies almost the totality of culture."

1: Holmberg--98 (1941-42) 1950 (Siriono
116, 105, 155

"Finally, the personality of the adult Siriono is itself a logical consequence of a life-long struggle to secure enough to eat. His early education in the family, his later contacts with his fellow tribesmen, and his final exposure to a harsh and rigorous environment all teach him that to survive he must be aggressive, individualistic, and uncooperative. These are the outstanding personality traits of the adult Siriono. The strong dependency relationships formed in infancy and early childhood do not persist. Gradually but prematurely they are displaced by traits of independence, so that when an Indian has reached adulthood he displays an individualism and apathy toward his fellows that is formidable.

The apparent unconcern of one individual for another—even within the family—never ceased to amaze me while I was living with the Siriono. Frequently men would depart for the hunt alone—without so much as a good-by—and remain away from the band for weeks at a time without any concern on the part of their fellow tribesmen or even their wives. On one occasion Ndekai, his wife, and their clubfooted son stayed away from the band for 6 weeks, wandering from one place to another in search of food. When they left they told no one about their plans, and while they were gone, no one showed the least concern about them. After returning from such a long absence, Ndekai was not even greeted by his tribesmen, although they eagerly tried to secure some of the meat he brought back with him. Such experiences indicate that were it not for the fact that the band supplies sex and marital partners, the family could be an independent social group among the Siriono."

1: Holmberg--98 [3] (1941-42) 1950 Siriono
116, 105, 158

"Such traits of character as have just been mentioned [MPK: unconcern of others] in no way indicate that the average Siriono is maladjusted and unstable. On the contrary, he seems to have made a relatively stable adjustment to harsh environment and to a culture that offers him little reward. The Siriono data would indicate, however, that man in the raw state of nature—and the Siriono may be regarded as the quintessence of such a man—is anything but cooperative, generous, submissive, or kind."